

REMARKS

Claims 16 through 24 are pending. Applicant respectfully submits that claims 16 through 24 are allowable over the art of record. Applicants gratefully acknowledge the Examiner's recognition (in the citation of the Luecke patent) regarding what Applicant has denoted as "second-surface" disks. In a second-surface disk, because the information layer is covered by a relatively thick transparent layer, typically at least 50 wavelengths in thickness or more with respect to the wavelength of the laser beam that will be used to read/write the information layer, the thick transparent layer then acts to defocus dust particles lying on its surface with respect to the information layer. But this thick layer acts to introduce optical aberrations that are undesirable in the miniaturization of both the optical disk and the related optical head used to read/write to the optical disk. As such, the present assignee has invented and claimed "first-surface" optical disks that do not include this thick overlaying transparent layer. Instead, dust particles are not defocused but must be dealt with using ECC alone.

Applicant respectfully submits that the Examiner's assertion that it is the "ECC block as sited [sic] in claim 16 is what the Applicant regards as his invention" is entirely incorrect. Applicants respectfully remind the Examiner that what is claimed is what Applicant regards as his invention. Instead, the Examiner has isolated part of what was claimed (the ECC block) and then used only this part to reject the claim as being obvious! This is entirely contrary to law and to the Examiner's guidelines as set forth in MPEP § 2143.03, which requires the Examiner to show that all claim limitations are taught or suggested so as to establish a prima facie case of obviousness. Moreover, see MPEP § 2141.02, which sanctions the Examiner to consider the claimed invention as a whole and to not distill the claimed invention down to a "gist." Moreover, this improper rejection was made final, thereby burdening Applicant with the expense of an RCE filing fee.

To reiterate, although the present assignee advanced the optical arts through the use of first-surface optical disks, conventional ECC blocks proved to be problematic in these first-surface optical disks. These conventional ECC blocks were optimized for the older, second-surface disks having the conventional CD-ROM /DVD size. When used in miniaturized first-surface optical disks, dust particles could cause multiple burst errors in these conventional ECC blocks as shown in Figure 1. Not only were the chances of burst errors increased, the degree of redundancy to provide the necessary ECC was not enough given that dust particles were no longer defocused. Accordingly, Applicant has invented the embodiment recited in

claim 16: namely a first-surface optical disk having "an information layer, and a transparent layer overlaying the information layer, wherein the thickness of the transparent layer with respect to the wavelength of the read/write laser beam is such that dust particles on the surface of the transparent layer are not defocused when reading data from the information layer with the laser beam passing through the transparent layer." In this first surface disk, the information layer organized into ECC blocks, "each ECC block forming an array of 104 rows and 182 columns of bytes, each row including ten bytes of inner parity and each column including sixteen bytes of outer parity." But note that use of such an ECC block would be contraindicated in second-surface disks – the claimed ECC block increases redundancy and thus reduces the available storage space. Thus, it cannot be divorced from the first-side disk limitation but must be considered with the first-side limitation as a whole.

Applicant respectfully submits that claim 16 is allowable over the Nakatsuji reference (USP 6,332,206). Indeed, the only optical disk discussed in the Nakatsuji reference is a DVD-ROM, a well-known second-surface disk. See, e.g., Col. 23, line 29. In the present application, however, what Applicant is claiming is a first-surface disk having an ECC block specialized for the particular circumstances encountered in a first-surface environment. Nakatsuji is entirely silent regarding such a novel creation. Accordingly, claim 16 is patentable over this reference.

Applicant is baffled by the Examiner's reliance on Luecke in support of the statement "a thin transparent layer such that dust particles are not defocused is not the patentee [sic] invention." As discussed above, it is what is claimed that is the patentee's invention – it is the Examiner's role to either agree by allowing what is claimed or to properly reject what is claimed over the prior art (the proper rejection requiring a teaching or suggestion for all claim limitations).

The DVD standard cited by the Examiner adds nothing further as it teaches a conventional second-surface ECC block size.

Because claims 17 through 20 depend either directly or indirectly upon claim 16, they are patentable for at least the same reasons.

Claim 21 claims another type of first-surface disk also discussed by the Applicant on, e.g., page 6, lines 14 through 30. In this embodiment, no transparent layer covers the information layer (although the transparent layer claimed in claim 16 cannot defocus dust particles, it may help optically couple the laser beam to the information layer). As such claim

LAW OFFICES OF
MACPHERSON KWOK CHEN &
HEID LLP
2402 MICHELSON DRIVE
SUITE 210
IRVINE CA 92613
(949) 753-7000
FAX (949) 753-7049

21 is patentable over the art of record for the same reasons discussed with respect to claim 16 (the ECC block limitations being the same).


Because claims 22 and 23 depend either directly or indirectly upon claim 21, they are patentable for at least the same reasons.

LAW OFFICES OF
MACPHERSON KWOK CHEN &
SEID LLP
2402 MICHELSON DRIVE
SUITE 210
IRVINE CA 92612
(949) 752-7049
FAX (949) 752-7049

CONCLUSION

For the above reasons, pending Claims 16 through 24 are in condition for allowance and allowance of the application is hereby solicited. If the Examiner has any questions or concerns, a telephone call to the undersigned at (949) 752-7040 is welcomed and encouraged.

I hereby certify that this correspondence is being transmitted via facsimile to telephone number (703) 872-9306 addressed to: Commissioner for Patents, Alexandria, VA 22313-1450, on March 10, 2004.


Eric Hoover

3/10/2004
Date of Signature

Respectfully submitted,



Jonathan Hallman
Attorney for Applicant(s)
Reg. No. 42,644

LAW OFFICES OF
MACPHERSON KWOK CHEN &
REID LLP
2401 NICHOLSON DRIVE
SUITE 210
IRVINE CA 92613
(949) 752-7040
FAX (949) 752-7049